



UNITED STATES PATENT AND TRADEMARK OFFICE

Tel

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,311	08/04/2000	Yoshihiro Ishikawa	195466US2PCT	8290
22850	7590	03/22/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, STEVEN H D	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/601,311	Applicant(s) ISHIKAWA, YOSHIHIRO	
	Examiner Steven HD Nguyen	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 16-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 16 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Wallentin (USP 6347091) in view of Quick (USP 5673259).

Wallentin discloses a traffic control for base station, mobile (Fig 2) and method for mobile data communications in a mobile communication system of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel (Col. 2, lines 44-45, shared channel) is set to be used by a plurality of users together and each individual channel (Col. 2, lines 42-44, dedicated channel) is set to be used exclusively by one user, the traffic control method for mobile data communications characterized by carrying out a communication using the common channel (Col. 2, lines 44-45, shared channel), between a mobile radio terminal (Fig 10, Ref 30) and a radio base station (Fig 10, Ref 28); detecting an increase or decrease of data traffic at the mobile radio terminal during the communication (Fig 10, Ref 81 for using to store data to be communication via the connection between the base station and mobile, the mobile determines if the amount of stored data in the queue is greater than a threshold "long queue", the CSS of mobile will judge if the connection should switch to dedicated channel or not, Fig 5 is used for both base station and mobile) and carrying out an

Art Unit: 2665

admission judgment for a shift from the common channel to the individual channel at the radio base station or the mobile radio terminal, when the increase in data traffic at the mobile radio terminal is detected (Fig 10, Ref 70 of base station and Ref 80 of the mobile are a connection state selector "CSS" for controlling the admission of communication data into the shared channel or the dedicated channel by switching between them when the amount of stored data exceeds a threshold, Fig 5, See col. 5, lines 43 to col. 6, lines 45, col. 9, lines 39-48, col. 11, lines 14-53) and shifting from the communication using the common channel to the communication using the individual channel between the mobile radio terminal and the radio base station (Fig 5, Ref 56). However, Wallentin fails to fully disclose a method and system shifting from the communication using the common channel to the communication using the individual channel between the mobile radio terminal and the radio base station when an admission of the shift is possible based on the result of dedicated channel allocation. In the same field of endeavor, Quick discloses a method and system for switching from a shared channel to dedicated channel, an admission of the shift is possible, based on the allocated dedicated channel result (See col. 3, lines 35-45, Col. 4, lines 22-38, col. 11, lines 5-52 and col. 26, line 12 to col. 27, line 52).

Since, Quick suggests a system that switching a communication from common channel to dedicated channel based on the available resource of the system via requesting and assignment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for switching from a shared channel to dedicated channel based on the result of the allocated dedicated channel as disclosed by Quick into the system and method of Wallentine. The motivation would have been to improve the throughput of the system and reduce transmission delay and congestion.

Art Unit: 2665

3. Claims 2, 17 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Wallentin and Quick as applied to claim 1 above, and further in view of the admitted prior arts.

Wallentin discloses the admission judgment for the shift from the common channel to the individual channel is carried out, at the radio base station according to information on an uplink interference amount which is an amount of received interferences and/or a downlink transmission power level which is a power level transmitted from the radio base station, or at the mobile radio terminal by receiving information on the uplink interference amount that is transmitted from the radio base station and according to the received information on the uplink interference amount (Fig 11, col. 11, lines 54-66, col. 12, lines 5-17, 33-55, The CSS Radio and mobile of Fig 10, switch the communication channel from the common “shared” channel to dedicated channel “individual channel” based on the uplink and downlink interference amount). Quick discloses a transmission power and interference (col. 2, line 64 to col. 3, line 13). However, Wallentin and Quick fail to fully disclose a method and system for switching from common channel to individual channel based on interference and transmission power. In the same field of endeavor, the applicant admitted that a method and system for admission a call into a system based on the interference and transmission power (See Page 2, first Para).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for admitting a call based on transmission power and interference as disclosed by the applicant into the system and method of Wallentin and Quick. The motivation would have been to utilize the system resource more efficiency.

4. Claim 3-5, 18-20 and 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Wallentin and Quick as applied to claim 1 above, and further in view of Kumar (USP 6418148).

Wallentin discloses when an admission of the shift is not possible as a result of the admission judgment for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel (Fig 5, Ref 59 discloses the communication can not switch to the dedicated channel, the communication is to be kept on the common channel, See col. 6, line 61 to col. 7, line 9 and col. 12, lines 43-52) and Quick discloses a method and system for switching from a shared channel to dedicated channel based on the allocated dedicated channel result and traffic condition of the shared channel (See col. 3, lines 35-45, Col. 4, lines 22-38, col. 11, lines 5-52 and col. 26, line 12 to col. 27, line 52). However, Wallentin and Quick fail to expressly disclose waiting a prescribed period of time for restarting an individual channel set up operation, which is determined according to a random number and different from the timing for retransmitting set up for other mobile radio terminals. Kumar discloses receiving a request for a supplemental channel, which is analogous to an individual channel, and if the request cannot be satisfied, the node that submitted the request is asked to resubmit is request after a random back-off period (col. 9, lines 4-19). Figure 3 shows that the back-off periods for different nodes may be set to the different periods of times. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to reject requests at the radio base station of Wallentin and Quick if no resources were available for a particular request, and to wait a random period of time before retrying. One of ordinary skill in the art would have been motivated to do this in order to assign the mobile radio terminal requesting an individual the necessary resources when they became available, and to limit contention between different mobile radio terminals that may request resources at the same time.

Response to Arguments

5. Applicant's arguments filed 1/9/06 have been fully considered but they are not persuasive.

In response to pages 8-11, the applicant states that Wallentin fails to disclose a method and system for detecting an increase of data traffic and shifting from the common channel to the dedicated at the mobile when the mobile detecting an increase data traffic at the mobile by carrying out admission judgment. In reply, Wallentin discloses a system and method includes a base station and mobile which includes a function for detecting if the amount of stored data in the connection queue above threshold or not (Fig 5, col. 5, lines 63 to col. 6, lines 16, discloses a method for measuring the uplink connection queue in the mobile, Fig 10, Ref 80 "detecting increase or decrease the data traffic" and determining if the mobile should shift from a common to dedicated channel or not by comparing the amount of stored data in the connection queue with a threshold "carry out admission judgment", if the mobile needs to switch from common to dedicated channel, the CCS of mobile, Fig 10, Ref 80 send a message to the mobile controller 82. The mobile controller sends a signaling message over the air interface to request for a dedicated channel assignment and wait for a response from the base station in order to switching from common channel to dedicated channel, Fig 10, ref 81, See col. 11, lines 14-53, Also Fig 8, col. 8, lines 14-60).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

Art Unit: 2665

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Wallentin discloses a method and system wherein the mobile detects if traffic has increase by comparing the queue length with threshold. If yes then mobile requests for switching a common to a dedicated channel by sending a request to base station with mobile controller. Quick discloses a method and system for sending a request for a dedicated channel to base station and waiting for channel assignment message before switching to the dedicated channel. Therefore it would have been obvious to one of ordinary skill in the art to implement the teaching of Quick into Wallentin. The motivation would have been to reduce congestion, improve throughput.

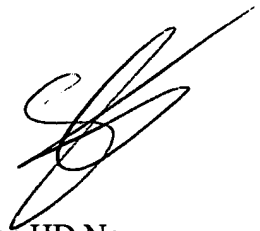
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2665

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'S. Nguyen', written in a cursive style.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
March 13, 2006